

**Claims**

I claim:

1. A valve for micro-fluidic analysis, comprising:
  - a main valve body;
  - a moveable rotor, having at least a portion located within said body, and having a face;
  - a first element located within said body and having first and second sides, with the first side adjacent to one face of said rotor, and having at least one LC feature;
  - a second element located within said body and having first and second sides, with the first side adjacent to the second face of said first element, and having at least one LC feature;
  - a stator located within said body, having openings therethrough and having a face which is adjacent to one face of said second element;
  - means for allowing selective rotation of said rotor; and
  - means for selectively allowing for fluid communication between the openings of said stator and at least one of the LC features of said first and second elements.
2. The valve according to claim 1 wherein at least one of the LC features of said first and second elements comprises a plurality of sample loops.
3. The valve according to claim 2 wherein the sample loops comprise grooves on the face of said first element.
4. The valve according to claim 2 wherein the sample loops comprise grooves in the face of said second element.
5. The valve according to claim 2 wherein the sample loops are of different volumes.

6. The valve according to claim 1 wherein at least one of the LC features of said first and second elements comprises a column.
7. The valve according to claim 1 wherein at least one of the LC features of said first and second elements comprises a detector.
8. The valve according to claim 1 wherein said first element comprises at least one sample loop and at least one column.
9. The valve according to claim 1 wherein said second element comprises at least one sample loop and at least one column.
10. The valve according to claim 1 wherein at least one of the LC features of said first and second elements comprises a mixer.
11. A valve for micro-fluidic analysis, comprising:
  - a main valve housing having a first end with a plurality of ports therethrough;
  - a moveable rotor positioned at least partially within said housing having a first end.
  - an element having first and second faces, with the first face adjacent to the first end of said rotor and adapted for movement responsive to movement of said rotor, wherein the second face of said element comprises at least two LC features which can be selectively positioned to be in fluid communication with at least one of the ports of said housing.
12. The valve according to claim 11 wherein at least one of the LC features of said element comprises a column.
13. The valve according to claim 12 wherein at least one of the LC features of said element comprises a sample loop.

14. The valve according to claim 13 wherein the sample loop comprises at least one groove in the second face of said element.

15. The valve according to claim 11 wherein at least one of the LC features of said element comprises a heating element.

16. The valve according to claim 11 wherein at least one of the LC features of element comprises an electro-osmotic pump.

17. The valve according to claim 11 further comprising:  
a plurality of tubes which allow fluid communication via the plurality of ports of said housing, wherein at least one end of one of said tubes in fluid communication with at least one of the LC features of the said element.

18. The valve according to claim 17 wherein a plurality of the ends of tubes are fluid communication with a least one of the LC feature of said element.

19. A method of micro-fluidic analysis, comprising the steps of:  
providing a valve which comprises within its housing a plurality of elements, each of the elements providing at least one LC feature, with the elements stacked together with the housing, wherein each of said elements is adapted to be selectively positioned within said valve; and  
selectively positioning at least one of the elements to engage at least one of the LC features provided by the first element.

20. The method according to claim 19 further comprising the step of selectively positioning a second of the plurality of elements to engage at least one of the LC features provided by the second element.